

bear the application, and I think grain and vegetables will if the liquid manure is applied to the soil before the last harrowing. When such men as Hon. George Geddes of New-York, and Henry Stewart of New Jersey, write against saving and applying this powerful fertilizer in this direct way, it shows the subject is not generally understood. When a fertilizer manufacturer thinks his trade in Vermont may be injured thousands of dollars by a few words from the Board of Agriculture, it shows that Vermonters are buying fertilizers, and the board would do a good work, to continue the investigation begun by Colonel Mead. Let a committee be appointed to examine and report. I believe that if the liquid manure is properly saved, the fertilizers of the farm will be doubled, and there will be little need of commercial fertilizers." *Vermont-Watchman*.

Dear Sir.—In the Journal for July, page 35, you say of *Nitrate of Soda*, "it is not in our market yet," etc, etc.

Although we are not merchants, this Company imports large quantities of Nitrate of Soda for the manufacture of Saltpetre, and I thought you might be interested in knowing that we have had several applications for the article, from both Ontario and Quebec, to be used as a fertilizer, and that we are glad to supply any one wishing intelligently to experiment with it.

Yours truly,

H. C. BRAINARD, President. *Hamilton Powder Co.*

I have much pleasure in printing Mr. Brainard's letter. Upon inquiry, I find that the price of the *nitrate of soda*, is low enough to bring it within reach of any farmer: an acre of wheat should receive from 100 lbs to 200 lbs, according to the condition of the land, and the cost would be from \$2.75 to \$5.50, which, with the addition of the proper quantity of phosphoric acid would only amount to from \$6 to \$8. The nitrate, at this rate, is even a cheaper source of nitrogen than the sulphate of ammonia, and in certain cases, it is more useful. I learn, too, from the manager of the Hamilton Powder company, that there is every prospect of *sulphuric acid* being obtainable next season for one cent a pound, which would make superphosphate, or rather, *dissolved bones* cost only \$24 a ton; a most desirable consumption. A. R. J. F.

#### Valuation of Manures.

An interesting paper on this subject was read by Mr H. Scott, of Alwrick, before the Coquetdale and Vale of An Agricultural Association, a few days ago. The writer pointed out that nitrogen is generally given in the form of ammonia, and estimated as worth £80 a ton, or 16s. per unit. This referred to ammonia alone, and not to sulphate of ammonia, which was worth one fourth of this, or 4s. per unit. Soluble phosphates are worth 3s. per unit, from whatever source obtained. Insoluble phosphates, when procured from bones or first-rate guano, are worth £10 a ton, while from mineral sources they are of but little value. Muriate of potash is sold at £7, or nearly 1s. 6d. per unit. It contains nearly 50 per cent., therefore pure potash is worth about 3s. per unit. Sulphate of potash can be bought at £2 5s. per ton (containing 15 per cent. of potash), and sulphate of magnesia at £3 15s. per ton. The latter would be 9d. per unit, and as it contains 15 per cent of magnesia, it would be, therefore, worth 5s. a unit. Alkaline salts are valued at £1 a ton, which is 3d. a unit. Guano, in 1868, contained ingredients theoretically worth £16 a ton, whereas an average sample now is not worth more than £12 10s. to £13, and much is sold of very inferior value. Bones should contain about 50 per cent. of phosphates and 4 per cent. of ammonia. In case of bonemeal yielding 54.10 per cent. of phosphates and 4.30 per cent. of ammonia, the valuation, deducting 10 per cent. for slow action, would be £7 19s. 3.; while  $\frac{1}{2}$ -inch and  $\frac{1}{4}$ -inch bones,

with the same analysis, would be worth respectively 4s. 5d. and 8s. 10d. less per ton. Dissolved bones should vary in price according to the percentage of soluble phosphates, the insoluble phosphate, and ammonia. They are the dearest form of phosphatic manure. Dissolved boneash is a highly valuable manure, very rich in soluble phosphate, often up to 36 per cent., with 4 or 5 per cent. of insoluble, which is considered as valuable as the same material in bones. Ordinary superphosphate from mineral sources is sold in two forms, ranging from 25 to 36 per cent. soluble. Such manures are worth from £3 15s. to £5 8s. per ton, and can often be bought in quantities at something less. A most interesting portion of Mr Scott's paper was that in which he gave an account of his own farm, which he entered in 1865 on a twenty-one years' lease, and which has since been extended to the end of the present century. Some of the worst fields were considered by the outgoing tenant as quite unworthy of cultivation, and so had been left for fourteen years in bare stubble furrow. The land was at once drained and limed, and now yields, with artificial manure, heavy crops. When the farm was entered in 1865, £180 was offered for 103 acres of outgoing crops. In 1874, when our series of good harvests came to an end, 15 acres of barley, without straw, yielded £181 2s. 6d. This improved state of things was entirely attributed by Mr Scott to the judicious use of artificial manures. *Eng. Ag. Gazette*.

#### Sheldon on Milk.

The modern development of the milk trade is a thing that would have astonished our forefathers, if it had been told to them. What the farmers would have done during the recent years of depression, if they had all been compelled to make their milk into cheese and butter, if, that is, there had been no milk trade as we see it to-day, it is difficult to imagine. Even as things were, with a large and an increasing proportion of the milk produced in Britain consumed as milk, the price to which cheese sank two years ago was lower than had probably been seen during the present century. Things are now better, and a healthier tone prevails among dairy farmers. Cows are milking much better this year, and the price of cheese, if only a fair quantity of it is made, will enable farmers to pay their way. Milk sold at 6 cts a quart is more profitable to the farmer who can realise that price than any possible cheese-making or butter-making can be. Milk at 4 cts a quart, in fact, is equal to \$21 or \$22 a cwt. for cheese, and to 30 cts or 36 cts a lb. for butter, so that 8 cts a quart, the price milk is generally retailed at, would enable farmers to save plenty of money. It may be said, indeed, that farmers, as a rule, can pay their way if they receive 4 cts a quart for their milk, without the cost of retailing it, and this for both summer's and winter's milk. For the summer's milk only, which is so much less costly to produce, farmers in many cases could carry along at 13 cts to 14 cts a gal. for the milk, providing the rents they have to pay are moderate, and their land is well adapted to milk producing. *Ag. Gazette*.

#### Cotton-seed meal.

In reply to T. A. H., page 630, Dr Moore says this is a "dangerous food." Why is it, unless adulterated with some poisonous or indigestible substance? I have caused it to be fed to all kinds of stock for years, and always to their benefit, and so have many of my friends. If this killed the shoats of T. A. H., he may depend it was badly adulterated, as oil meal often is by dealers putting plaster of Paris or other deleterious substances in it. The scoundrels who do this deserve a long term in the State Prison, and it is a great pity they cannot be found out and sent there.

A. B. ALLEN, in *Country Gentleman*.